ABSTRACT OF THE DISCLOSURE

A sensor whose size can be decreased without marring the performance and which can be installed in a narrow place, an electric device, and a method for easily manufacturing the electric device. By vacuum deposition of semiconductor on a columnar body or by applying a melt, solution, or gel of semiconductor to the columnar body, a coating of semiconductor is formed. Four insulating wires, a stripe band of the connected four insulating wires are wound around the columnar body. Then, one of the insulating wires is removed to form a copper wire in the vacant portion by copper vacuum deposition. Lastly, another insulating wire not adjacent to the copper wire is removed to form an aluminum wire in the vacant portion by aluminum vacuum deposition. By measuring the resistance between the copper and aluminum wires, the intensity of light striking the semiconductor can be determined.